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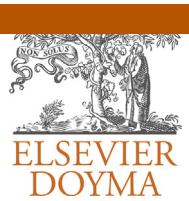

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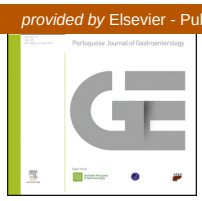

ENDOSCOPIC SPOT

An uncommon case of partial small-bowel obstruction: Non-steroidal anti-inflammatory drug enteropathy

Caso invulgar de suboclusão intestinal: enteropatia por anti-inflamatórios não esteróides

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Non-steroidal anti-inflammatory drugs (NSAIDs) are one of the most commonly prescribed drugs in the world for their analgesic and anti-inflammatory properties. However, NSAIDs have limitation in its prescription due to gastrointestinal (GI) toxicity.

An 82-year-old white woman presented to the emergency department of another hospital due to a 48-h history of nausea, vomiting, constipation and abdominal distension. Past medical history included only chronic osteoarthritis for which she was medicated with etodolac 300 mg bid. She was also on low-dose aspirin (100 mg qd) and omeprazole 20 mg qd. A plain abdominal X-ray showed crowded small-bowel loops with mild dilatation but no air-fluid levels. CT scan of abdomen and pelvis was significant for parietal thickening (10 mm) in a jejunal loop with mild to moderate proximal dilatation. The patient was admitted due to partial small-bowel obstruction and successfully managed with conservative treatment.

For further investigation, she was referred to our institution. At antegrade double-balloon enteroscopy, multiple concentric diaphragmatic strictures were present in the medium and distal jejunum (Fig. 1). Biopsies revealed intense reparative alterations and mild inflammation (Fig. 2). Based on the clinical, endoscopic and histological findings a diagnosis of NSAID-induced enteropathy was made.

Recently, NSAID-induced enteropathy has gained much attention due to the introduction of new emerging diagnostic modalities, capsule endoscopy and device assisted enteroscopy. NSAIDs and aspirin can induce a variety of abnormalities including ulcerations, perforations, bleeding, and diaphragm-like strictures in the small intestine.[1] Endoscopic findings include reddish erosion, multiple sharply demarcated ulcer and concentric stenosis.[2,3] Multiple discrete ulcers are the most frequent finding. The mainstay of treatment for this entity is discontinuation of the NSAID.

Concentric diaphragmatic stricture is thought to be the pathognomonic of NSAID injury.[4] They are usually multiple, found mostly in the mid-intestine, but have also been described in the ileum and colon.[4] Clinical presentation of diaphragm disease is nonspecific and may present with obstructive symptoms. It develops from scarring reaction secondary to ulcerative injury during long-term NSAID use. The histological features of the diaphragm-like stricture include fibrosis in the submucosa and thickening of the *muscularis mucosa*.[4] Since the muscularis propria layer is intact, the risk of intestinal perforation is low with endoscopic

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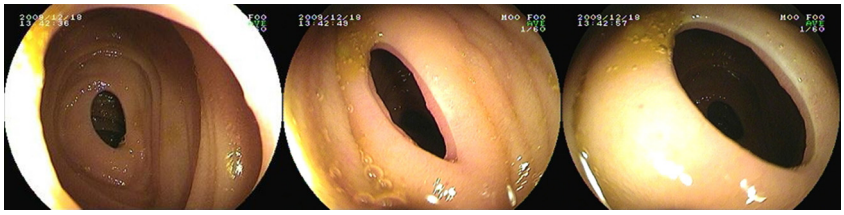

Figure 1 Diaphragm-like strictures, and interposed normal mucosal folds seen on double-balloon enteroscopy.

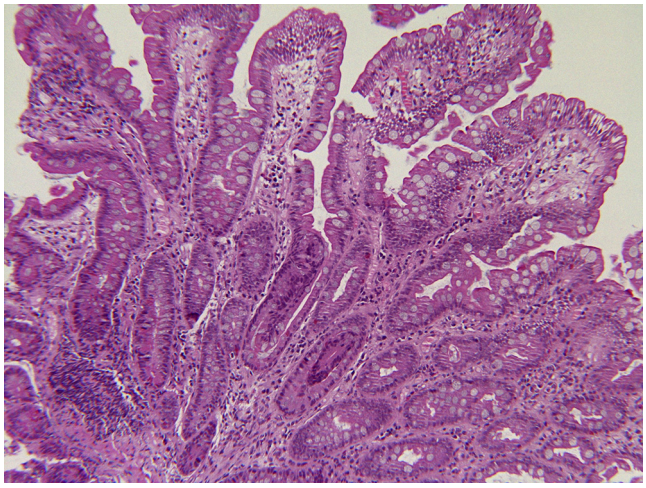

Figure 2 Jejunal mucosa with unspecific inflammatory changes and reparative fibromuscular hiperplasia of lamina propria (H&E stain 40×).

balloon dilation, which is why it is a preferred treatment modality than surgical intervention.[5] However, diaphragm-like strictures tend to be multiple, and resection and/or strictureplasty of the involved intestinal segment may be required.

Ethical disclosures

Protection of human and animal subjects. The authors declare that no experiments were performed on humans or animals for this study.

Confidentiality of data. The authors declare that they have followed the protocols of their work center on the publication of patient data and that all the patients included in the study received sufficient information and gave their written informed consent to participate in the study.

Right to privacy and informed consent. The authors declare that no patient data appear in this article.

Conflicts of interest

The authors have no conflicts of interest to declare.

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